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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/694,739

10/29/2003

Akihito Kubota

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32172

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04/05/2006

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EXAMINER

TRAIL, ALLYSON NEEL

ART UNIT

PAPER NUMBER

2876

DATE MAILED: 04/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/694,739

Applicant(s)

KUBOTA, AKIHITO

Examiner

Allyson N. Trail

Art Unit

2876

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 3-2006.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Amendment*

1 Receipt is acknowledged of the Amendment and the Request for Continued Examination filed January 17, 2006.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lynggaard (2003/0138144) in view of Kagehiro et al (2003/0044068).

With respect to claims 1, 2, 6, 7, 11, 15, and 16, Lynggaard disclosed in the abstract a method, a system and a computer-readable medium storing computer-executable components for improving a character recognition process. The invention is based on the idea that a sequence of characters is received from a character recognition process and compared to predetermined strings of characters. A measure of matching is generated for each string of characters that is compared to the sequence, indicating which one of the compared strings that best matches the sequence. Based on the measure of matching, a sequence of characters is provided, comprising at least one string selected from the predetermined strings, thereby creating an output sequence of characters. Thus, it is possible to correct an erroneous sequence of characters received from the character recognition process by providing a

predetermined string of characters, which string has the highest probability of matching the handwritten text fed to the character recognition process.

It is further disclosed in paragraph 0012, that the output sequence of characters is presented to the user on a display of a device, such as a mobile phone, a PDA, a laptop or a digital pen etc.

Paragraph 0027 discusses once the segments are identified, the segments are compared with preloaded strings contained in tables, located in a database or some other equivalent storage means. The database or its equivalent is located in the pen or in some external device in connection to the pen, such as a mobile phone, a PDA, a computer or a server. The preloaded strings consist of preloaded e-mail addresses, which, of course, are known to be correct. The object is to find strings in the tables that matches what the user actually wrote, thereby correcting a potentially erroneous output from the character recognition process.

With respect to claim 5, 10, 14, and 19, Lynggaard teaches in paragraph 0009, that the received sequence of characters consists of an e-mail address and the identification of segments in the sequence is performed by delimiting the segments with the characters "@". This is an easy way to identify segments in an e-mail address, but the present invention could be applied on other formats as well, such as web addresses, intranet addresses and WAP addresses, as long as it is possible to segment the sequence of characters.

With respect to claims 3, 4, 8, 9, 12, 13, 17, and 18, (the limitation of the display disclosed in claims 9 and 13 is taught above, see Lynggaard's teachings in reference to

claim 1), Lynggaard teaches in paragraph 0025, figure 2 shows a character recognition process, wherein every letter is handwritten in a predetermined e-mail address field. A character recognition process outputs a list of characters for each position, and an actual matching probability for each character. The sequence of characters that the character recognition process proposes is the sequence that is made up of the characters that has the highest matching probability in each position.

An example is further disclosed in paragraph 0029. The example includes a segment A output from the character recognition process being identified as "john". This segment is compared to the strings of characters in Tab A. By comparing the segment to the strings in Tab A on a character by character basis, the string "john" matches the segment "john" to a measure of 75%, under the condition that each of the characters "j", "o", and "n" is given a matching probability of 1 (100%), respectively. In other words, they are considered exact matches. If a character is not considered to be an exact match, it is given, in this specific example, a matching probability of 0. The measure of matching is calculated as  $(1+1+0+1)/4=75\%$ . The other segments, "hotmail" and "com" are compared to the strings in Tab C and Tab B, respectively. Each of the characters in these two segments is considered to be an exact match, and thus the measure of matching for these two segments is 100%, respectively, since these exact two strings exist in the tables. This specific embodiment is advantageous since a measure of matching can be calculated in a simple manner by giving, for each character in a specific position where there is a match between the segment and the-

string, the character the matching probability 1. Each character in a specific position where there is no match is given the matching probability 0.

Lynggaard fails to teach the cellular phone including an image capturing device for capturing a character string.

With respect to claim 1-19, Kagehiro et al teaches in the abstract that the invention relates to a mobile device with a built-in image capture device, and a character recognition function to present the information gathered with the character recognition result.

Additionally, Kagehiro et al teaches in paragraph 0001, a mobile device, such as a mobile phone, with a built-in image capture device is widespread due to the increase in CPU performance, and the price reduction of a CCD or the like. By capturing an image including a character string noted by a user, and recognizing the character string using the mobile device with a built-in image capture device, it becomes possible to extract the information related to the character string from a network.

In view of Kagehiro et al's teachings it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Lynggaard's method of correcting incorrectly recognized character string as entered into the cellular phone with Kageheiro et al's cellular phone built-in image capture device used for character recognition. Lynggaard teaches above entering a character sting into a cellular phone and providing a means for correctly identifying the character string entered. Both Lynggaard and Kageheiro et al teach capturing character stings into a cellular phone and a character recognition process. Lynggaard enters characters with a

keypad entry and Kageheiro et al with an image capturing device. One would be motivated to include in Lynggaard's cellular phone an image capturing means in order to more quickly enter a desired character string.

### ***Response to Arguments***

4. Applicant's remarks filed January 17, 2006 have been fully considered, however are not persuasive. The remarks fail to point out disagreements with the examiner's contentions. The references applied against the claims are not discussed and no explanation of how the claims avoid the references or distinguish from them is disclosed.

### ***Conclusion***

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allyson N. Trail whose telephone number is (571) 272-2406. The examiner can normally be reached between the hours of 7:30AM to 4:00PM Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee, can be reached on (571) 272-2398. The fax phone number for this Group is (571) 273-8300.


Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [allyson.trail@uspto.gov].

*All Internet e-mail communications will be made of record in the application file.*  
*PTO employees do not engage in Internet communications where there exists a*

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*possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.*

Allyson N. Trail  
Patent Examiner  
Art Unit 2876  
March 27, 2006

  
**STEVEN S. PARK**  
**PRIMARY EXAMINER**